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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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MORGAN LEWIS & BOCKIUS LLP
1111 PENNSYLVANIA AVENUE NW
WASHINGTON, DC 20004

EXAMINER

HECKENBERG JR, DONALD H

| ART UNIT | PAPER NUMBER |
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1722

6

DATE MAILED: 05/01/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/810,228

Applicant(s)

SHIDA ET AL.

Examiner

Donald Heckenberg

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. Figure 4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: -19- (the "portion", spec. p. 6, ln. 8). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. Applicant is reminded of the proper language and format for an abstract of the disclosure. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. Appropriate correction is required.

4. The disclosure is objected to because of the following informalities: The specification should not refer to the claims, as the claims may change during the course of prosecution of the

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application. The specification refers to the claims in the following places: p. 12, ln. 14; p. 13, lns. 4, 17, 18, 23; p. 27, lns. 6, 16.

The specification also refers to a "bus 1" in line 14. It appears as though this should read a "bush 1".

Appropriate correction is required.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the side" in line 9. There is insufficient antecedent basis for this limitation in the claim. Claim 3, line 9 and claim 5, line 9 both also recite the limitation of "the side" for which there is no antecedent basis in these claims as well.

The term "almost the same volume" in claim 6 is a relative term which renders the claim indefinite. The term "almost the

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same" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. As such, it is not possible discern what would constitute "almost the same volume" as opposed to a different volume.

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 3, and 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Inoue (US Pat. No. 5,705,105).

Inoue teaches an injection mold for manufacturing a disc substrate comprising a pair of mold bodies (14 and 25) which are disposed in a manner that circular shaped mold forming surfaces thereof are opposed to each other to form a disc-shaped mold space therebetween (see fig. 2), a conduction member (27) which is fitted to one of the pair of mold bodies so as to communicate with outside through a conduction path for conducting molten molding material injection from the outside into the disc-shaped

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mold space (see col. 5, lns. 48-54), and a first heat suppressing member (28) for suppressing heat within the conduction path from being transmitted to the one of the pair of mold bodies disposed between the conduction member and the pair of the mold bodies fitted with to the conduction member (see col. 6, lns. 51-53).

Inoue further teaches the mold to comprise a molding space disposed at a portion at the other of pair of mold bodies opposing to the conduction member (see below). As broadly construed, such the space has almost the same volume as the conduction member as recited in claim 6 (note the rejection of claim 6 under 35 USC 112, second paragraph above).

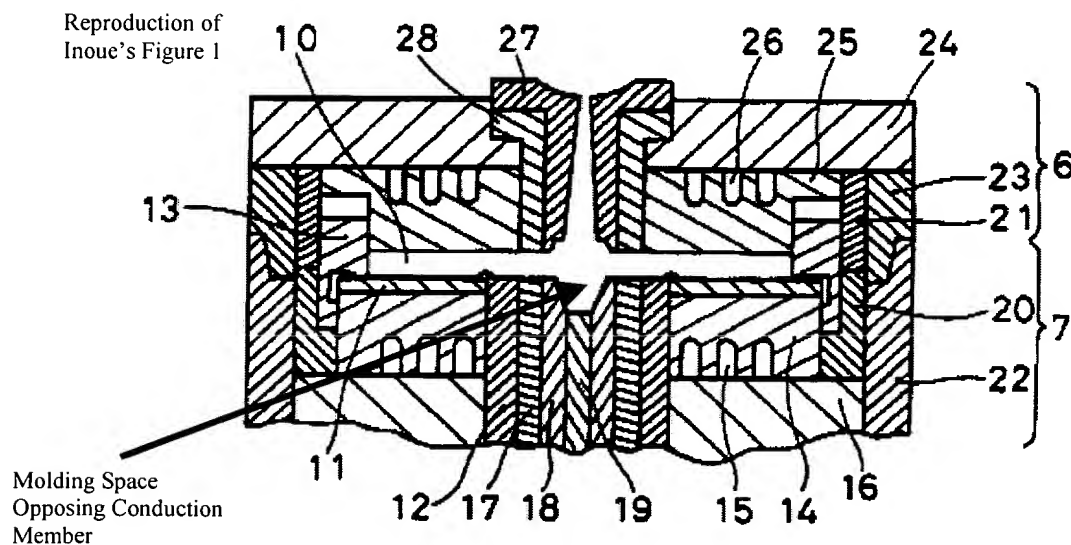


FIG. 1

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9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to

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point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue.

Inoue teaches the apparatus as described above, including the use of a heat suppressing member disposed between the conduction path and the mold body for the purpose of suppressing heat from being transmitted to the mold body. Inoue fails to teach a second heat suppressing member at a position opposing the first heat suppressing member on the other mold body side of the pair of mold bodies.

To add a second heat suppressing member such as the one taught by Inoue would amount to the duplication of a known part for the multiplied effect of more heat suppression. Generally, the duplication of a known part for a multiplied effect has no patentable significance unless it can be shown that there is a new and unexpected result. In re Harza, 274 F.2d 669, 124 USPQ 378 (Cust. & Pat. App. 1960); St. Regis Paper Co. v. Bemis Co., Inc., 549 F.2d 833, 193 USPQ 8 (7th Cir. 1977). In this case, it

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would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to have modified the apparatus of Inoue as such to have provided a second heat suppressing member opposed to the first heat suppressing member because this would multiply the effect of blocking heat transmission to the mold body.

13. The following reference cited, but not relied upon is deemed pertinent to the instant application:

Japanese Pat. No. 8-281737 teaches the use of a heat insulation sleeve (21a) in an injection mold for manufacturing discs.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald Heckenberg whose telephone number is (703) 308-6371. The examiner can normally be reached on Monday through Friday from 9:30 A.M. to 6:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Jan Silbaugh, can be reached at (703) 308-3829. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310 for responses to non-final action,

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and 703-872-9311 for responses to final actions. The unofficial fax phone number is (703) 305-3602.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Donald Heckenberg
April 23, 2002



JAN H. SILBAUGH
SUPERVISORY PATENT EXAMINER
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04/30/02